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EXAMINER	
MILLS, DONALD L	

ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/626,549	MILBRANDT, CELITE	
	Examiner	Art Unit	
	Donald L Mills	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 July 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,6-9,12-16,19-26,29,32-37 and 40-72* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,6-9,12-16,19-26,29,32-37 and 40-72* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 59-61 and 70 are objected to because of the following informalities:

Regarding claims 59-61, the claims depend on claim 16; however, claim 16 has been previously canceled. Claims 59-61 appear as though they should depend on claim 58.

Regarding claim 70, the claim depends on claim 65; however, it appears as though it should depend from claim 68. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 20-22, 24-26, 32-34, 45, 59, and 63 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 20, 24, and 32 the term *spectral management message* (For example, see claim 20, line 2,) lacks proper antecedent basis. For the purpose of this examination the Examiner will interpret *the spectral management message* as the training message.

Regarding claims 45 and 59, the term *a second spectral management message* (For example, see claim 45, lines 3-4,) lacks proper antecedent basis. For the purpose of this examination the Examiner will interpret *a second spectral management message* as the training message.

Regarding claim 63, the claim states *and the training message comprising* (See claim 63, lines 4-5.) However, there is no further description of the training message.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3, 6-9, 12-16, 19-26, 29, 32-37, and 40-72 are rejected under 35 U.S.C. 102(e) as being anticipated by Fluss (US 6,304,578 B1).

Regarding claim 1, Fluss discloses a packet routing and queuing at the headend of a shared data channel, which comprises:

A plurality of digital subscriber line access multiplexers (Referring to Figure 2, DSLAMs **205**.)

A communication channel coupling the plurality of digital subscriber line access multiplexer operable to transmit and receive at least one training message over the communications channel (Referring to Figure 2, based on the broad and literal interpretation of the term "coupling," the Examiner interprets the channel from the subscribers **220** through DSLAM **205** to the Ethernet Hub **204** and through the next subsequent DSLAM **205** to the next subset of subscribers **220** as the claimed communication channel which "couples" the DSLAMs for receiving and transmitting modem training messages. See column 5, lines 34-37,) *the*

training message indicating that a carrier has at least received a request to train a digital subscriber line modem and the training message comprising (Referring to Figure 2, DSLAM **205**, during operation receives line characterization messages (training messages) and generates responses across DSL lines **221**, which indicate a request to train a DSL modem. See column 5, lines 34-37:)

A company identifier identifying the carrier that has at least received the request to train the digital subscriber line modem (Referring to Figure 2, the line characterization message comprises test signal that identifies the carrier that is requesting the training of the DSL modem.)

A modem identifier identifying the digital subscriber line modem (Referring to Figure 2, the line characterization message comprises the modem's MAC address, modem identifier.)

Regarding claims 2, 3, 15, 41, 42, 48, and 53, Fluss discloses *wherein the interface comprises a 10/100 base-T Ethernet port* (Referring to Figure 2, DSLAM **205** comprises an Ethernet link **205**. See column 5, lines 54-56.)

Regarding claims 6, 12, 20, 24, 32, 36, 52, 61, and 72, Fluss discloses *wherein the controller is operable to receive a distress message, the distress message operable to indicate that the digital subscriber line modem violates at least one compliance guideline* (Referring to Figure 2, subsequent line characterizations are performed after the initial characterization, the DSLAM receives the subsequent line characterizations which indicate any changes due to interference (distress message) the subsequent line characterizations indicate a new source of interference, violation of compliance guideline.)

Regarding claims 7, 13, 21, 25, 33, 37, and 70, Fluss discloses wherein the distress message comprises:

A company identifier identifying a carrier that trained the digital subscriber line modem (Referring to Figure 2, the line characterization message comprises test signal that identifies the carrier that is requesting the training of the DSL modem.)

A modem identifier identifying the digital subscriber line modem (Referring to Figure 2, the line characterization message comprises the modem's MAC address, modem identifier.)

Regarding claims 8, 16, 23, 29, 35, 44, 54, and 71, Fluss discloses a packet routing and queuing at the headend of a shared data channel, which comprises:

A multiplexer operable to receive signals from a plurality of digital subscriber line connections and to aggregate the signals for transmission over a high-speed backbone line (Referring to Figure 2, DSLAM **205** receives signals from DSL lines **221** and aggregates the signals for transmission over Ethernet link **209**. See column 5, lines 34-37.)

A controller operable to receive/transmit a training message/distress message/spectral management message, the training/distress message indicating that a carrier has at least received a request to train a digital subscriber line modem/violates at least one compliance guideline and the training/distress message comprising (Referring to Figure 2, DSLAM **205**, inherently comprising a CPU (controller), during operation receives line characterization messages (training messages) and generates responses across DSL lines **221**, which indicate a request to train a DSL modem. See column 5, lines 34-37:)

A company identifier identifying the carrier that has at least received the request to train the digital subscriber line modem (Referring to Figure 2, the line characterization

message comprises test signal that identifies the carrier that is requesting the training of the DSL modem.)

A modem identifier identifying the digital subscriber line modem (Referring to Figure 2, the line characterization message comprises the modem's MAC address, modem identifier.)

An interface coupled to the controller and operable to receive the spectral management/distress message over a spectral management channel (Referring to Figure 2, DSLAM **205** comprising an interface coupled to the CPU receives the line characterization signal over the data link.)

Regarding claims 9, 45, and 50, Fluss discloses *the controller is operable to generate a second spectral management message; and the interface is also operable to transmit the second spectral management message over the spectral management channel* (Referring to Figure 2, DSLAM **205**, comprising a CPU, generates a response to the line characterization message; and transmits the response over the data link to the DSL modems.)

Regarding claims 14 and 22, Fluss discloses *wherein the controller is further operable to generate a distress message using a previously received training message* (Referring to Figure 2, subsequent line characterizations are performed after the initial characterization, the DSLAM transmits responses (distress message) to the subsequent line characterizations which indicate any changes due to interference.)

Regarding claims 19, 56, and 60, Fluss discloses *training the digital subscriber line modem* (Referring to Figure 2, DSLAM **205**, during operation receives line characterization messages, training the digital subscriber line modem. See column 5, lines 34-37.)

Regarding claims 26 and 64, Fluss discloses *retraining the digital subscriber line modem in response to receiving the distress message* (Referring to Figure 2, DSLAM **205**, during operation receives line characterization messages (retraining the digital subscriber line modem). See column 5, lines 34-37.)

Regarding claims 34, 57, and 67, Fluss discloses *wherein the software is operable to identify the carrier that trained the digital subscriber line modem using a previously-received training message* (Referring to Figure 2, DSLAM **205**, identifies the DSL access loop **221** during operation by receiving line characterization messages (training the digital subscriber line modem). See column 5, lines 34-37.)

Regarding claim 40, Fluss discloses a packet routing and queuing at the headend of a shared data channel, which comprises:

A plurality of digital subscriber line access multiplexers (Referring to Figure 2, DSLAMs **205**.)

A communication channel coupling the plurality of digital subscriber line access multiplexer operable to transmit a distress message over the communications channel (Referring to Figure 2, based on the broad and literal interpretation of the term "coupling," the Examiner interprets the channel from the subscribers **220** through DSLAM **205** to the Ethernet Hub **204** and through the next subsequent DSLAM **205** to the next subset of subscribers **220** as the claimed communication channel which "couples" the DSLAMs for receiving and transmitting modem line characterization messages. See column 5, lines 34-37,) *the distress message indicating that a digital subscriber line modem violates at least one compliance guideline and the distress message comprising* (Referring to Figure 2, subsequent line characterizations are

performed after the initial characterization, the DSLAM receives the subsequent line characterizations which indicate any changes due to interference (distress message) the subsequent line characterizations indicate a new source of interference, violation of compliance guideline:)

A company identifier identifying a carrier that trained the digital subscriber line modem (Referring to Figure 2, the line characterization message comprises test signal that identifies the carrier that is requesting the training of the DSL modem.)

A modem identifier identifying the digital subscriber line modem (Referring to Figure 2, the line characterization message comprises the modem's MAC address, modem identifier.)

Regarding claims 43, 46, 51, 55, 59, 63, 66, and 69, Fluss discloses *wherein the controller is operable to receive a training message, the training message indicating that a carrier has at least received a request to train the digital subscriber line modem* (Referring to Figure 2, DSLAM **205**, inherently comprising a CPU (controller), during operation receives line characterization messages (training messages) and generates responses across DSL lines **221**, which indicates a request to train a DSL modem. See column 5, lines 34-37.)

Regarding claim 47, Fluss discloses *wherein the controller is further operable to generate the distress message using a previously received training message* (Referring to Figure 2, DSLAM **205** during operation receives line characterization messages (training messages) and generates responses across DSL lines **221**, based upon a line characterization message, previously received training message. See column 5, lines 34-37.)

Regarding claim 49, Fluss discloses a packet routing and queuing at the headend of a shared data channel, which comprises:

A multiplexer operable to receive signals from a plurality of digital subscriber line connections and to aggregate the signals for transmission over a high-speed backbone line (Referring to Figure 2, DSLAM **205** receives signals from DSL lines **221** and aggregates the signals for transmission over Ethernet link **209**. See column 5, lines 34-37.)

A controller operable to receive a spectral management message, the spectral management message comprising information related to a training of a digital subscriber line modem over one of the subscriber lines, and to generate a distress message using a previously-received training message (Referring to Figure 2, DSLAM **205**, inherently comprising a CPU (controller), during operation receives line characterization messages (spectral management message related to training) and generates responses across DSL lines **221**. See column 5, lines 34-37.)

An interface coupled to the controller and operable to receive the spectral management message over a spectral management channel (Referring to Figure 2, DSLAM **205** comprising an interface coupled to the CPU receives the line characterization signal over the data link.)

Regarding claim 58, Fluss discloses a packet routing and queuing at the headend of a shared data channel, which comprises:

Coupling a digital subscriber line access multiplexer to a spectral management channel (Referring to Figure 2, DSLAM **205** receives signals from DSL lines **221**. See column 5, lines 34-37.)

Identifying a carrier that trained a digital subscriber line modem using a previously-received training message (Referring to Figure 2, DSLAM **205**, identifies the DSL access loop **221** during operation by receiving line characterization messages (training the digital subscriber line modem). See column 5, lines 34-37.)

Transmitting a distress message over the spectral management channel, the distress message indicating that the digital subscriber line modem violates at least one compliance guideline (Referring to Figure 2, subsequent line characterizations are performed after the initial characterization, the DSLAM receives the subsequent line characterizations which indicate any changes due to interference (distress message) the subsequent line characterizations indicate a new source of interference, violation of compliance guideline.)

Regarding claims 62 and 65, Fluss discloses a packet routing and queuing at the headend of a shared data channel, which comprises:

Coupling a digital subscriber line access multiplexer to a spectral management channel (Referring to Figure 2, DSLAM **205** receives signals from DSL lines **221**. See column 5, lines 34-37.)

Transmitting and Receiving a distress message over the spectral management channel, the distress message indicating that the digital subscriber line modem violates at least one compliance guideline and the distress message comprising: (Referring to Figure 2, subsequent line characterizations are performed after the initial characterization, the DSLAM receives the subsequent line characterizations which indicate any changes due to interference (distress message) the subsequent line characterizations indicate a new source of interference, violation of compliance guideline.)

A company identifier identifying a carrier that trained the digital subscriber line modem (Referring to Figure 2, the line characterization message comprises test signal that identifies the carrier that is requesting the training of the DSL modem.)

A modem identifier identifying the digital subscriber line modem (Referring to Figure 2, the line characterization message comprises the modem's MAC address, modem identifier.)

Regarding claim 68, Fluss discloses a packet routing and queuing at the headend of a shared data channel, which comprises:

A computer readable medium (Referring to Figure 2, DSLAM **205** comprises memory.)

Software encoded on the computer readable medium, the software operable when executed to transmit and receive a distress message over a spectral management channel, the distress message indicating that a digital subscriber line modem violates at least one compliance guideline (Referring to Figure 2, line characterizations are performed over the DSL lines **221**, the DSLAM receives the subsequent line characterizations which indicate any changes due to interference (distress message) and responds to the line characterizations, the subsequent line characterizations indicate a new source of interference, violation of compliance guideline,) *and to identify a carrier that trained the digital subscriber line modem using a previously-received training message* (Referring to Figure 2, DSLAM **205**, identifies the DSL access loop **221** during operation by receiving line characterization messages (training the digital subscriber line modem). See column 5, lines 34-37.)

Response to Arguments

6. Applicant's arguments with respect to claims 1-3, 6-9, 12-16, 19-26, 29, 32-37, and 40-72 have been considered but are moot in view of the new grounds of rejection.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald L Mills whose telephone number is 571-272-3094. The examiner can normally be reached on 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 703-305-4744. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Donald L Mills

September 3, 2004

JOHN PEZZLO
PRIMARY EXAMINER